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Patricia Lewis
#14/Brief on Appeal
6-20-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. **8055**

MMB Docket No. **1001-0582**

Application of: **Morrison**

Group Art Unit: **3622**

Serial No. **09/217,542**

Examiner: **D. Lastra**

Filed: **December 21, 1998**

Title: **Method and Apparatus for Determining if a User Walks Away From a Self-Service Checkout Terminal During Operation Thereof**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner of Patents, Alexandria, VA 22313-1450 on June 9, 2003
(Date of Deposit)

David M. Lockman
Name of person mailing Document or Fee

Signature

June 9, 2003
Date of Signature

LETTER

Commissioner of Patents and Trademarks
Alexandria, VA 22313-1450

Sir:

Enclosed are an original and three (3) copies of an Appeal Brief in connection with the above-identified patent application. The Notice of Appeal was filed on April 9, 2003 and thus the Appeal Brief was due two months from this date (i.e. 06/09/03). Also enclosed herewith is a check for $320.00 to cover the fee required under 37 CFR 1.17(c).

Additionally, the U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency or credit any overpayment, to our Deposit Account No. 13-0014, but not to include any payment of issue fees. If extensions of time under 37 C.F.R. § 1.136 are required to prevent abandonment of the present patent application, then such extensions of time are hereby petitioned for, and any fees therefor are hereby authorized to be charged to our Deposit Account No. 13-0014.

Respectfully submitted,
MAGINOT, MOORE & BOWMAN

June 9, 2003

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ORIGINAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. **8055**

Application of: **Morrison**

Group Art Unit: **2162**

Serial No.: **09/217,542**

Examiner: **D. Lastra**

Filed: **December 21, 1998**

For: **Method and Apparatus for Determining if a User Walks Away from a Self-Service Checkout Terminal During Operation Thereof**

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June 9, 2003
Date of Signature

BRIEF ON APPEAL

Hon. Commissioner of Patents and Trademarks

Alexandria, VA 20231

Sir:

This is an appeal under 37 CFR § 1.191 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of the claims 1-18 of the above-identified patent application. These claims were indicated as finally rejected in an Office Action dated January 9,

2003. Three copies of the brief are filed herewith, together with the $320.00 fee required under 37 CFR § 1.17(c). Also, please provide any extension of time that may be necessary and charge any fees that may be due to Account No. 13-0014, but not to include any payment of issue fees.

(1) REAL PARTY IN INTEREST

NCR Corporation of Dayton, Ohio is the assignee of this patent application, and the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this patent application (serial no. 09/217,542).

(3) STATUS OF CLAIMS

Claims 1-18 are pending in the application.

Claims 1-18 are finally rejected, and are being appealed.

Each of claims 1-18 is shown in the Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

Appellant has filed no amendments subsequent to the final rejection contained in the Office Action mailed January 9, 2003.

(5) SUMMARY OF INVENTION

The invention of claims 1, 2, 14, and 15 relates to a method of operating a self-service checkout terminal in the checkout area of a retail store. The method includes generating a payment-tendered control signal when a user of the self-service checkout terminal tenders payment for a number of items for purchase. See, *e.g.*, Applicant's specification at page 18, lines 5-22 and Fig. 3. The method further includes detecting if the user exits the checkout area of the retail store and generating a walk-away control signal in response thereto. See, *e.g.*, Applicant's specification at page 19, line 1 to page 20, line 23. The method also includes generating a personnel-request control signal if the walk-away control signal is generated prior to generation of the payment-tendered control signal. See, *e.g.*, Applicant's specification at page 20, line 23 to page 21, line 14 and Figs. 5 and 6. This method may be performed by a movement detection device 22 coupled to a processing unit 26 executing a plurality of instructions stored in a memory device 27. See, *e.g.*, Applicant's specification at page 12, line 22 to page 13, line 4 and Fig. 3. This system may be used to operate a summoning device such as a status light 11. See, *e.g.*, Applicant's specification at page 21, lines 5-14.

The invention of claims 3 and 16 also relates to the method discussed above and further including the detection of user movement on a movement detection floor mat 22 for generating the walk-away control signal if the movement of the user indicates the user is attempting to exit the checkout area of the retail store. See, *e.g.*, Applicant's specification at page 15, line 13 to page 16, line 19 and Figs. 3, 5 and 6.

The invention of claims 4 and 17 relates to the method discussed above and further includes detecting user movement from the checkout area to the shopping area and the generation of a return-to-shopping control signal. Upon detection of the user's return, the method generates a return-to-terminal control signal. The return-to-terminal control signal permits the user to continue the transaction commenced before exiting the checkout area to return to the shopping area. See, *e.g.*, Applicant's specification at page 19, line 22 to page 20, line 12 and Fig. 5.

The invention of claims 5 and 18 relates to the method discussed above and further includes the detection of the user's return to the shopping area being detected on a movement detection floor mat 22. See, *e.g.*, Applicant's specification at page 19, line 22 to page 20, line 12 and Fig. 5.

The invention of claim 6 relates to the method discussed above and further includes the detection of the user exiting the checkout area and generating an exiting-store control signal. This inventive method also includes the generation of a personnel-needed-immediately control signal in response to the generation of the exiting-store control signal and the operation of a

summoning device 11 in response to the personnel-needed immediately control signal. See, *e.g.*, Applicant's specification at page 20, line 17 to page 21, line 12 and Fig. 6.

The invention of claim 7 relates to the method discussed above and further includes detecting movement of the user in a direction to exit the store with a movement detection floor mat 22 and generating the personnel-needed-immediately control signal. See, *e.g.*, Applicant's specification at page 20, line 17 to page 21, line 12 and Figs. 1, 3, and 6.

The invention of claims 8 and 9 relates to a method for operating a self-service checkout terminal. The method includes generating a payment-tendered control signal when a user of the self-service checkout terminal tenders payment for a number of items for purchase. See, *e.g.*, Applicant's specification at page 18, lines 5-22 and Fig. 3. The method further includes detecting movement of the user on a movement detection floor mat 22 and generating a walk-away control signal if the detected movement indicates the user exits the checkout area. See, *e.g.*, Applicant's specification at page 12, line 22 to page 13, line 4, page 19, line 1 to page 20, line 23, and Fig. 3. The method also includes generating a personnel-request control signal if the walk-away control signal is generated prior to generation of the payment-tendered control signal. See, *e.g.*, Applicant's specification at page 20, line 23 to page 21, line 14 and Figs. 5 and 6. This system may be used to operate a summoning device such as a status light 11. See, *e.g.*, Applicant's specification at page 21, lines 5-14 and Fig. 1.

The invention of claim 10 relates to the self-service operating method discussed in the previous paragraph and further includes detecting user movement on the movement detection floor mat to determine whether the user exits from the checkout area to the shopping area and generating a return-to-shopping control signal in response thereto. The method also includes detecting the user's movement on the movement detection floor mat 22 to determine whether the user returns to the checkout area and generating a return-to-terminal control signal in response thereto. The return-to-terminal control signal permits the user to continue the transaction commenced before exiting to return to the shopping area. See, *e.g.*, Applicant's specification at page 19, line 22 to page 20, line 12 and Fig. 5.

The invention of claim 11 relates to the method of self-service terminal operation of the previous paragraph and further includes detecting a checkout area exit from movement of the user on the movement detection floor mat 22 in a direction toward the shopping area for generation of the return-to-shopping control signal. See, *e.g.*, Applicant's specification at page 19, line 22 to page 20, line 12 and Fig. 5.

The invention of claim 12 also relates to a method of self-service terminal operation as discussed in the third paragraph preceding this one and the detection of the user's movement on the floor mat 22 to determine the user's exit from the checkout area further includes generating a personnel-needed-immediately control signal in response to the exiting-store control signal. The method also includes operating a summoning device 11 in response to the

generation of the personnel-needed-immediately control signal. See, *e.g.*, Applicant's specification at page 20, line 17 to page 21, line 12 and Figs. 1, 3, and 6.

The invention of claim 13 also relates to the method of the previous paragraph wherein the detection of the user's exit from the checkout area includes detection of the user's movement on the floor mat in a direction indicative of an attempt by the user to exit the store and generating the personnel-needed-immediately control signal in response thereto. See, *e.g.*, Applicant's specification at page 20, line 17 to page 21, line 12 and Figs. 1, 3, and 6.

(6) ISSUE

Whether claims 1-18 are unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110).

(7) GROUPING OF CLAIMS

The rejected claims do not stand or fall together.

Claims 1, 2, 14, and 15 form a first separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 3 and 16 form a second separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 4 and 17 form a third separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 5 and 18 form a fourth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 6 forms a fifth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 7 forms a sixth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 8 and 9 form a seventh separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 10 forms an eighth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 11 forms a ninth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 12 forms a tenth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 13 forms an eleventh separately patentable group that is argued independently of the other claims for purposes of this appeal.

(8) ARGUMENT

First Claim Grouping (Claims 1, 2, 14, and 15)

Claims 1, 2, 14 and 15 were rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claims 1, 2, 14, and 15.

1. Claim 1

Claim 1 reads as follows:

> 1. A method of operating a self-service checkout terminal located in a checkout area of a retail store, comprising the steps of:
> generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase;
> detecting if said user exits said checkout area of said retail store and generating a walk-away control signal in response thereto; and
> generating a personnel-request control signal if said walk-away control signal is generated prior to generation of said payment-tendered control signal.

Appellant's invention of claim 1 is directed at the particular problems created in a self-service retail environment when a customer walks away from a self-service retail checkout terminal prior to tendering payment for his or her items for purchase. In traditional checkout systems, a clerk employed by the retailer to operate the checkout terminal monitors or otherwise ensures that the customer pays for his or her items for purchase prior to walking away from the checkout terminal. However, in the case of a self-service retail checkout terminal, the clerk is not present. The invention of claim 1 discovered by the inventor effectively addresses these problems present in the self-service retail environment.

2. Proposed Combination of Addy and Cotton

In the January 9, 2002 Office Action (at page 3, lines 11-16), it was stated that:

> It would have been obvious ... to know that the Addy et al system would be modified to include a pressure sensitive floor to determine if the user walks away from the checkout area (as taught by Cotton et al) and that when this occurs before a payment-tendered is generated, security officers would be paged or a video camera would begin recording the area.

Thus, it appears that the proposed combination is to modify the retail terminal of Addy which is operable to generate a payment-tendered control signal

when a user tenders payment for a number of items for purchase so that its retail terminal includes a pressure sensitive floor (such as taught by Cotton). The proposed combination would further include modifying the retail terminal so that the pressure sensitive floor is operable to create a walk-away control signal in response to detecting a user exiting a checkout area of a retail store. The proposed modification would additionally include modifying the retail terminal so that it is operable to generate a personnel-request control signal if the walk-away control signal is generated prior to generation of the payment-tendered control signal.

3. *There Exists No Teaching, Suggestion, or Incentive which Supports Combining Addy and Cotton in the Proposed Manner*

Obviousness cannot be established by modifying the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the modification.

A legally proper teaching, suggestion or incentive that supports combining Addy and Cotton in a manner which arrives at the invention of claim 1 does not appear to have been identified in the January 9, 2002 Office Action. In short, *why* would one skilled in the art have been motivated to combine these two references? The January 9, 2002 Office Action attempts to identify some motivation, but only serves to identify what Applicant's invention does ("a way to determine if the customers have paid before exiting the store" - see page 12, line 2). This result arises from Applicant's invention and not from the combination of Addy and Cotton. The Cotton reference does not teach locating the pressure sensitive floor mat at a position that provides information regarding the

relationship of a customer to a self-service checkout area. Instead, Cotton only uses the mat in order to identify whether those persons at the door where the mat is located are entering or leaving the store. Thus, the number of persons in a store may be incremented and decremented in accordance with the detected direction of a person on the mat. (Cotton, col. 4, lines 47-68; col 28, lines 19-42). This technology solves the problem of attempting to count the number of persons in a store by counting the number of times the door to a store is opened (Cotton, col. 3, lines 40-56). However, Cotton does not address or even acknowledge the problem of detecting persons exiting the store *before tendering payment at a self-service checkout terminal*. Likewise, Addy, a patent directed to a self-service checkout terminal, does not contain any acknowledgement of the problem of detecting persons leaving the checkout area of a self-service checkout area before tendering payment. Consequently, Examiner's statement of motivation merely recognizes a function of Applicant's invention without identifying how any cited reference recognized the problem that Applicant's invention solves. Examiner is using the disclosure of Applicant's application to combine Addy and Cotton through hindsight.

To present a case of *prima facie* obviousness, Examine must do more than simply note the improvement to self-service checkout terminals provided by Applicant's invention. Examiner must (1) identify some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) demonstrate a reasonable expectation of success for the proposed

combination, and (3) show that all of the claim limitations are taught or suggested by the references. MPEP § 2142. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed Cir. 1991). Applicant respectfully submits that Examiner has failed to make a *prima facie* case with respect to any of the claim groupings presented in this appeal.

Examiner has failed to identify any teaching, suggestion, or incentive existing in the prior art to make the claimed combination proposed by Examiner. Absent such reasons or incentive, the teachings of the references are not properly combinable. Nowhere does the Addy reference appreciate any shortcoming in its security monitoring of a retail terminal and certainly Addy does not recognize the problem of a customer exiting the checkout area before tendering payment. Thus, the Addy reference sees no need for the modification proposed by Examiner. Further, nothing in the Cotton reference nor any other cited reference alone or together suggests the claimed invention as a solution to the problem of a customer walking away from a self-service retail checkout terminal prior to tendering payment for items presented for purchase. That the claimed invention may employ some known principles (such as a pressure sensitive floor mat) does not itself establish that the invention would have been obvious. See, *e.g.*, *Lindermann Maschinenfabrik GmbH V. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

Examiner has also failed to identify a reasonable expectation of success *in the prior art* for the proposed combination. Because neither Addy nor Cotton recognizes the problem of customers leaving a self-checkout station before tendering payment, Examiner's statement in the Office Action of January 9, 2003 regarding the improvement wrought by detecting a self-service checkout terminal user leaving before payment is tendered is evidence that Examiner is using Applicant's disclosure to combine the two cited references. Only by reading Applicant's disclosure is Examiner even aware of this problem that is solved by a self-service checkout terminal that generates a payment tendered control signal and that generates a walk away control signal in response to detection of a user exiting a checkout area of a retail store.

Additionally, Examiner has failed to show that all of the claim limitations are present in the cited references. For example, the Cotton reference only discloses the use of a pressure sensitive mat at the door of a store to distinguish movement with respect to ingress and egress of the store. Claim 1 requires detection of a user exiting a particular area, the checkout area, of a store. Thus, the cited references do not teach or suggest all of the claim limitations.

Furthermore, Examiner expansively reads the Cotton reference. Examiner states the system of Cotton "triggers a signal to turn on surveillance equipment in a point of sale environment" based on a determination as to whether a person is walking out of or entering a store. Final Office Action, p. 3, lines 6-10. However, Cotton does not turn on a VCR for recording camera data until the count of store occupants reaches a threshold count (Cotton, col. 28,

lines 43-49). The surveillance cameras are actually selected for operation under user control (Cotton, col. 28, l. 49-56). Thus, Cotton does not generate a control signal in response to customer egress or ingress but rather upon comparison of an aggregate occupant count for the store to a threshold. Consequently, Cotton does not generate a walk away control signal as set forth in claim 1 and there is no teaching or suggestion of generating such a signal in Cotton or any other reference of record in this appeal.

For at least these reasons, the Examiner has failed to present a valid *prima facie* case for obviousness of the claimed invention. Consequently, the Board of Appeals is respectfully requested to reverse the rejection of claim 1.

Discussion Re: Patentability of Claim 2

Claim 2 depends directly from claim 1. As a result, claim 2 is allowable for the reasons hereinbefore discussed with regard to claim 1. Accordingly, claim 2 is further allowable over the cited art.

Discussion Re: Patentability of Claim 14

The discussion in regard to the patentability of claim 1 is relevant to the patentability of claim 14. As a result, claim 14 is allowable over Addy and Cotton.

Discussion Re: Patentability of Claim 15

Claim 15 depends directly from claim 14. As a result, claim 15 is allowable for the reasons hereinbefore discussed with regard to claim 14. Accordingly, claim 15 is allowable over the cited art.

Second Claim Grouping (Claims 3 and 16)

Claims 3 and 16 were rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claims 3 and 16.

Claim 3 depends directly from claim 1. As a result, claim 3 is allowable for the reasons hereinbefore discussed with regard to claim 1. Moreover, claim 3 recites additional novel and nonobvious limitations. In particular, claim 3 reads as follows:

> 3. The method of claim 1, wherein said step of detecting if said user exits said checkout area of said retail store includes the step of detecting movement of said user on a movement detection floor mat and generating said walk-away control signal if said movement of said user is indicative of an attempt by said user to exit said checkout area of said retail store.

There is no teaching, suggestion or incentive that supports combining Addy and Cotton in a manner which arrives at the invention of claim 3. While the security system of Cotton may detect the entering or exiting of a customer from a store, it does not generate a walk away control signal in response to a user exiting the checkout area of a retail store. Again, there is no teaching or suggestion in either reference to generate such a signal in response to such a condition. Nothing in Cotton or Addy would motivate one skilled in the art to

combine the teachings of Addy and Cotton to arrive at Appellant's invention of claim 3. Again, arriving at Appellant's invention of claim 3 without evidence that one of ordinary skill in the art would combine the cited references to solve the problem of customers leaving a self-service checkout terminal before tendering payment demonstrates Examiner's impermissible use of Applicant's disclosure as hindsight. As a result, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established with regard to Appellant's invention of claim 3. Accordingly, the Board of Appeals is respectfully requested to reverse the rejection of claim 3.

Discussion Re: Patentability of Claim 16

Claim 16 depends directly from claim 14. As a result, claim 16 is allowable for the reasons herein discussed with regard to claim 14. Moreover, the discussion in regard to the patentability of claim 3 is relevant to the patentability of claim 16. As a result, claim 16 is allowable over Addy and Cotton.

Third Claim Grouping (Claims 4 and 17)

Claims 4 and 17 were rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claims 4 and 17.

Claim 4 depends directly from claim 1. As a result, claim 4 is allowable for the reasons hereinbefore discussed with regard to claim 1. Moreover, claim 4

recites additional novel and nonobvious limitations. In particular, claim 4 reads as follows:

> 4. The method of claim 1, wherein said detecting step includes the step of detecting if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store and generating a return-to-shopping control signal in response thereto, further comprising the steps of:
>
> detecting if said user returns to said checkout area of said retail store from said shopping area of said retail store and generating a return-to-terminal control signal in response thereto; and
>
> operating said self-service checkout terminal so as to allow said user to continue a retail transaction in response to generation of said return-to-terminal control signal.

Neither Addy nor Cotton discloses the following step:

> detecting if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store and generating a return-to-shopping control signal in response thereto

Thus, combining Addy and Cotton in the manner described in the January 9, 2003 Office Action at page 4, line 18 to page 5, line 14 would not arrive at Appellant's invention of claim 4. The Examiner has also failed to demonstrate that the prior art expected the cited combination to have a reasonable expectation of success and Examiner has not shown that all the limitations of claim 4 are taught or suggested by the cited references. Consequently, a *prima facie* case of obviousness under 35 U.S.C. § 103 has further not been established with regard to Appellant's invention of claim 4, and the Board of Appeals is respectfully requested to reverse the rejection of claim 4.

Discussion Re: Patentability of Claim 17

Claim 17 depends directly from claim 16. As a result, claim 17 is allowable for the reasons hereinbefore discussed with regard to claim 16.

Moreover, the discussion in regard to the patentability of claim 4 is relevant to the patentability of claim 18. As a result, claim 18 is allowable over Addy and Cotton.

Fourth Claim Grouping (Claims 5 and 18)

Claims 5 and 18 were rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claims 5 and 18.

Claim 5 depends directly from claim 4. As a result, claim 5 is allowable for the reasons hereinbefore discussed with regard to claim 4. Moreover, claim 5 recites additional novel and nonobvious limitations. In particular, claim 5 reads as follows:

> 5. The method of claim 4, wherein said step of detecting if said user exits said checkout area of said retail store so as to return to said shopping area of said retail store includes the step of detecting movement of said user on a movement detection floor mat in a direction toward said shopping area and generating said return-to-shopping control signal in response thereto.

The pressure floor mat of Cotton may detect a particular direction of movement of a person; however, it is not located within the store to detect movement from a checkout area to a shopping area of a retail store. As previously noted, Cotton does not recognize the need for distinguishing movement from one area of a store to another as it only detects customer ingress and egress with respect to the store as a whole. Thus, no teaching or suggestion to combine Addy and Cotton in the manner described in the January 9, 2002 Office Action at page 5, line 15 to page 6, line 6 is present in any

reference of record. Nor would such a combination arrive at Appellant's invention of claim 5. Consequently, a *prima facie* case of obviousness under 35 U.S.C. § 103 has further not been established with regard to Appellant's invention of claim 5, and the Board of Appeals is respectfully requested to reverse the rejection of claim 5.

Discussion Re: Patentability of Claim 18

Claim 18 depends directly from claim 16. As a result, claim 18 is allowable for the reasons hereinbefore discussed with regard to claim 16. Moreover, the discussion in regard to the patentability of claim 5 is relevant to the patentability of claim 18. As a result, claim 18 is allowable over Addy and Cotton.

Fifth Claim Grouping (Claim 6)

Claim 6 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 6.

Claim 6 depends directly from claim 1. As a result, claim 6 is allowable for the reasons hereinbefore discussed with regard to claim 1. Moreover, claim 6 recites additional novel and nonobvious limitations. In particular, claim 6 reads as follows:

> 6. The method of claim 1, wherein said detecting step includes the step of detecting if said user exits said checkout area of said retail store so as to exit said retail store and generating an exiting-store control signal in response thereto, further comprising the steps of:

generating a personnel-needed-immediately control signal in response to generation of said exiting-store control signal; and

operating a summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal.

Again, the security system of Cotton lacks any teaching regarding detection of a user in a particular direction of movement from one area of a store to another and it certainly lacks a teaching of detecting whether a user exits the checkout area of the retail store in the direction of exiting the store. Applicant's invention attempts to thwart theft by generating a personnel-needed-immediately control signal before the user exits the store. The Cotton reference cannot timely alert personnel because it detects the actual exit from the store of the person. Thus, any signal to alert personnel is actually too late to be truly effective. Again, Cotton does not recognize this shortcoming because it is addressing the problem of identifying a situation within a store that warrants security surveillance based on the total number of occupants in the store (Cotton, col. 3, lines 40-64). Accordingly, neither Addy, Cotton, nor any other reference of record contains a teaching or suggestion to make the cited combination in the manner described in the January 9, 2002 Office Action at page 6, lines 7-23. Therefore, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established with regard to Appellant's invention of claim 6, and the Board of Appeals is respectfully requested to reverse the rejection of claim 6.

Sixth Claim Grouping (Claim 7)

Claim 7 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et

al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 7.

Claim 7 depends directly from claim 6. As a result, claim 7 is allowable for the reasons hereinbefore discussed with regard to claim 6. Moreover, claim 7 recites additional novel and nonobvious limitations. In particular, claim 7 reads as follows:

> 7. The method of claim 6, wherein, said step of detecting if said user exits said checkout area of said retail store so as to exit said retail store includes the step of detecting movement of said user on a movement detection floor mat in a direction indicative of an attempt by said user to exit said retail store and generating said personnel-needed-immediately control signal in response thereto.

Again, the security system of Cotton lacks any teaching regarding detection of a user in a particular direction of movement from one particular area of a store and it certainly lacks a teaching of detecting by use of a floor mat whether a user exits the checkout area of the retail store in the direction of exiting the store. Applicant's invention attempts to thwart theft by generating a personnel-needed-immediately control signal before the user exits the store. The mat of the Cotton reference cannot timely alert personnel because it is located at the door to the store so it detects the actual exit of the person. Thus, any signal to alert personnel is actually too late to be truly effective. Again, Cotton does not recognize this shortcoming because it is addressing the problem of identifying a situation within a store that warrants security surveillance based on the total number of occupants in the store (Cotton, col. 3, lines 40-64). Furthermore, there is no relationship between the movement detected by the mat in Cotton and operation of a checkout terminal. Thus, the movement detected by the mat

in Cotton is that of a person leaving the store and not necessarily of anyone who has attempted to checkout with any goods. Cotton does not concern the operation of its security system with checkout terminal operation because it does not recognize the problem of persons attempting to abort the checkout procedure and abscond with items. Accordingly, neither Addy, nor Cotton, nor any other reference of record contains a teaching or suggestion to make the cited combination in the manner described in the January 9, 2002 Office Action at page 7, line 1 to page 8, line 2. Therefore, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established with regard to Appellant's invention of claim 7, and the Board of Appeals is respectfully requested to reverse the rejection of claim 7.

Seventh Claim Grouping (Claims 8 and 9)

Claims 8 and 9 were rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claims 8 and 9.

Discussion Re: Patentability of Claim 8

Claim 8 reads as follows:

> 8. A method of operating a self-service checkout terminal located in a checkout area of a retail store, comprising the steps of:
> generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase;
> detecting movement of said user on a movement detection floor mat and generating a walk-away control signal if said movement of said user is indicative of an attempt by said user to exit said checkout area of said retail store; and

generating a personnel-request control signal if said walk-away control signal is generated prior to generation of said payment-tendered control signal.

Claim 8 is allowable for at least two distinct reasons.

Firstly, the discussion in regard to the patentability of claim 1 is relevant to the patentability of claim 8. (See First Claim Grouping discussion.) As a result, claim 8 is allowable over Addy and Cotton.

Secondly, the discussion in regard to the patentability of claim 3 is relevant to the patentability of claim 8. (See Second Claim Grouping discussion.) As a result, claim 8 is further allowable over Addy and Cotton.

Discussion Re: Patentability of Claim 9

Claim 9 depends directly from claim 8. As a result, claim 9 is allowable for the reasons hereinbefore discussed with regard to claim 8. As a result, claim 9 is allowable over Addy and Cotton.

Eighth Claim Grouping (Claim 10)

Claim 10 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 10.

Discussion Re: Patentability of Claim 10

Claim 10 reads as follows:

10. The method of claim 8, wherein said detecting step includes the step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store and generating a return-to-shopping control signal in response thereto, further comprising the steps of:

detecting movement of said user on said movement detection floor mat so as to determine if said user returns to said checkout area of said retail store from said shopping area of said retail store and generating a return-to-terminal control signal in response thereto; and

operating said self-service checkout terminal so as to allow said user to continue a retail transaction in response to generation of said return-to-terminal control signal.

Claim 10 is allowable for at least two distinct reasons.

Firstly, the discussion in regard to the patentability of claim 8 is relevant to the patentability of claim 10. (See Seventh Claim Grouping discussion.) As a result, claim 10 is allowable over Addy and Cotton.

Secondly, the discussion in regard to the patentability of claim 4 is relevant to the patentability of claim 10. (See Third Claim Grouping discussion.) As a result, claim 10 is further allowable over Addy and Cotton.

Ninth Claim Grouping (Claim 11)

Claim 11 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 11.

Discussion Re: Patentability of Claim 11

Claim 11 reads as follows:

11. The method of claim 10, wherein said step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to return to said shopping area

of said retail store includes the step of detecting movement of said user on said movement detection floor mat in a direction toward said shopping area and generating said return-to-shopping control signal in response thereto.

Claim 11 is allowable for at least three distinct reasons.

Firstly, the discussion in regard to the patentability of claim 8 is relevant to the patentability of claim 11. (See Seventh Claim Grouping discussion.) As a result, claim 10 is allowable over Addy and Cotton.

Secondly, the discussion in regard to the patentability of claim 4 is relevant to the patentability of claim 11. (See Third Claim Grouping discussion.) As a result, claim 11 is further allowable over Addy and Cotton.

Thirdly, the discussion in regard to the patentability of claim 5 is relevant to the patentability of claim 11. (See Fourth Claim Grouping discussion.) As a result, claim 11 is yet further allowable over Addy and Cotton.

Tenth Claim Grouping (Claim 12)

Claim 12 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 12.

Discussion Re: Patentability of Claim 12

Claim 12 reads as follows:

12. The method of claim 8, wherein said detecting step includes the step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to exit said retail store and generating an exiting-store control signal in response thereto, further comprising the steps of:

generating a personnel-needed-immediately control signal in response to generation of said exiting-store control signal; and

operating a summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal.

Claim 12 is allowable for at least two distinct reasons.

Firstly, the discussion in regard to the patentability of claim 8 is relevant to the patentability of claim 12. (See Seventh Claim Grouping discussion.) As a result, claim 12 is allowable over Addy and Cotton.

Secondly, the discussion in regard to the patentability of claim 6 is relevant to the patentability of claim 12. (See Fifth Claim Grouping discussion.) As a result, claim 12 is further allowable over Addy and Cotton.

Eleventh Claim Grouping (Claim 13)

Claim 13 was rejected as being unpatentable under 35 U.S.C. § 103 as being obvious over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110). The Board of Appeals is respectfully requested to reconsider the rejection of claim 13.

Discussion Re: Patentability of Claim 13

Claim 13 reads as follows:

13. The method of claim 12, wherein, said step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to exit said retail store includes the step of detecting movement of said user on said movement detection floor mat in a direction indicative of an attempt by said user to exit said retail store and generating said personnel-needed-immediately control signal in response thereto.

Claim 13 is allowable for at least two distinct reasons.

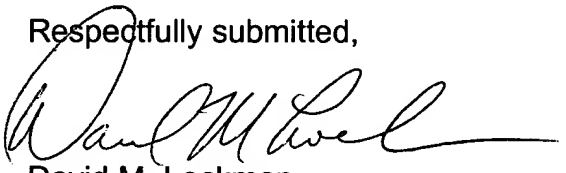
Firstly, the discussion in regard to the patentability of claim 8 is relevant to the patentability of claim 13. (See Seventh Claim Grouping discussion.) As a result, claim 13 is allowable over Addy and Cotton.

Secondly, the discussion in regard to the patentability of claim 7 is relevant to the patentability of claim 13. (See Sixth Claim Grouping discussion.) As a result, claim 13 is further allowable over Addy and Cotton.

(9) CONCLUSION

Examiner has failed to demonstrate that claims 1-18 are obvious under 35 U.S.C. § 103 over Addy et al. (U.S. Patent No. 6,056,087) in view of Cotton et al. (U.S. Patent No. 4,630,110), and the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,



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(10) APPENDIX

1. A method of operating a self-service checkout terminal located in a checkout area of a retail store, comprising the steps of:

generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase;

detecting if said user exits said checkout area of said retail store and generating a walk-away control signal in response thereto; and

generating a personnel-request control signal if said walk-away control signal is generated prior to generation of said payment-tendered control signal.

2. The method of claim 1, further comprising the step of:

operating a summoning device so as to summon retail personnel in response to generation of said personnel-request control signal.

3. The method of claim 1, wherein said step of detecting if said user exits said checkout area of said retail store includes the step of detecting movement of said user on a movement detection floor mat and generating said walk-away control signal if said movement of said user is indicative of an attempt by said user to exit said checkout area of said retail store.

4. The method of claim 1, wherein said detecting step includes the step of detecting if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store and generating a return-to-shopping control signal in response thereto, further comprising the steps of:

detecting if said user returns to said checkout area of said retail store from said shopping area of said retail store and generating a return-to-terminal control signal in response thereto; and

operating said self-service checkout terminal so as to allow said user to continue a retail transaction in response to generation of said return-to-terminal control signal.

5. The method of claim 4, wherein said step of detecting if said user exits said checkout area of said retail store so as to return to said shopping area of said retail store includes the step of detecting movement of said user on a movement detection floor mat in a direction toward said shopping area and generating said return-to-shopping control signal in response thereto.

6. The method of claim 1, wherein said detecting step includes the step of detecting if said user exits said checkout area of said retail store so as to exit said retail store and generating an exiting-store control signal in response thereto, further comprising the steps of:

generating a personnel-needed-immediately control signal in response to generation of said exiting-store control signal; and

operating a summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal.

7. The method of claim 6, wherein, said step of detecting if said user exits said checkout area of said retail store so as to exit said retail store includes the step of detecting movement of said user on a movement detection floor mat in a direction indicative of an attempt by said user to exit said retail store and generating said personnel-needed-immediately control signal in response thereto.

8. A method of operating a self-service checkout terminal located in a checkout area of a retail store, comprising the steps of:

generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase;

detecting movement of said user on a movement detection floor mat and generating a walk-away control signal if said movement of said user is indicative of an attempt by said user to exit said checkout area of said retail store; and

generating a personnel-request control signal if said walk-away control signal is generated prior to generation of said payment-tendered control signal.

9. The method of claim 8, further comprising the step of:

operating a summoning device so as to summon retail personnel in response to generation of said personnel-request control signal.

10. The method of claim 8, wherein said detecting step includes the step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store and generating a return-to-shopping control signal in response thereto, further comprising the steps of:

detecting movement of said user on said movement detection floor mat so as to determine if said user returns to said checkout area of said retail store from said shopping area of said retail store and generating a return-to-terminal control signal in response thereto; and

operating said self-service checkout terminal so as to allow said user to continue a retail transaction in response to generation of said return-to-terminal control signal.

11. The method of claim 10, wherein said step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to return to said shopping area of said retail store includes the step of detecting movement of said user on said movement detection floor mat in a direction toward said shopping area and generating said return-to-shopping control signal in response thereto.

12. The method of claim 8, wherein said detecting step includes the step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to exit said retail store and generating an exiting-store control signal in response thereto, further comprising the steps of:

generating a personnel-needed-immediately control signal in response to generation of said exiting-store control signal; and

operating a summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal.

13. The method of claim 12, wherein, said step of detecting movement of said user on said movement detection floor mat so as to determine if said user exits said checkout area of said retail store so as to exit said retail store includes the step of detecting movement of said user on said movement detection floor mat in a direction indicative of an attempt by said user to exit said retail store and generating said personnel-needed-immediately control signal in response thereto.

14. A self-service checkout terminal, comprising:

a movement detecting device for detecting movement of a user thereon;

a processing unit electrically coupled to said movement detecting device; and

a memory device electrically coupled to said processing unit, wherein said memory device has stored therein a plurality of instructions which, when executed by said processing unit, causes said processing unit to:

(a) generate a payment-tendered control signal when said user of said self-service checkout terminal tenders payment for a number of items for purchase,

(b) detect if said user exits said checkout area of said retail store with said movement detecting device and generate a walk-away control signal in response thereto, and

(c) generate a personnel-request control signal if said walk-away control signal is generated prior to generation of said payment-tendered control signal.

15. The retail terminal of claim 14, further comprising a summoning device for summoning retail personnel, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to operate said summoning device so as to summon said retail personnel in response to generation of said personnel-request control signal.

16. The retail terminal of claim 14, wherein:

said movement detecting device includes a movement detection floor mat, and

said plurality of instructions, when executed by said processing unit, further causes said processing unit to detect movement of said user on said movement detection floor mat and generate said walk-away control signal in response thereto.

17. The retail terminal of claim 16, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to:

(a) detect if said user exits said checkout area of said retail store so as to return to a shopping area of said retail store with said movement detection floor mat and generate a return-to-shopping control signal in response thereto,

(b) detect if said user returns to said checkout area of said retail store from said shopping area of said retail store with said movement detection floor mat and generate a return-to-terminal control signal in response thereto, and

(c) operate said self-service checkout terminal so as to allow said user to continue a retail transaction in response to generation of said return-to-terminal control signal.

18. The retail terminal of claim 16, further comprising a summoning device for summoning retail personnel, wherein said plurality of instructions, when executed by said processing unit, further causes said processing unit to:

(a) detect if said user exits said checkout area of said retail store so as to exit said retail store with said movement detection floor mat and generate an exiting-store control signal in response thereto,

(b) generate a personnel-needed-immediately control signal in response to generation of said exiting-store control signal, and

(c) operate said summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal.